

**Decoster Egg Farms  
Androscoggin County  
Turner, Maine  
A-163-71-D-A**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Amendment #1  
After-the-Fact**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

1. Decoster Egg Farms (DEF) of Turner, Maine was issued Air Emission License A-163-71-C-N on September 20, 2000, permitting the operation of emission sources associated with their egg farm.
2. DEF has requested a minor revision to their license in order make the following changes:
  - a. Replace the 200 kW emergency generator in Plant 7 with a new 500 kW unit;
  - b. Replace the 2.55 MMBtu/hr boiler located in Plant 3 with two (2) new 1.63 MMBtu/hr units;
  - c. Revise the listed capacity for the boiler located in Plant 2 from 2.77 MMBtu/hr to 1.68 MMBtu/hr.

B. Emission Equipment

DEF is licensed to operate the following equipment:

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate (gal/hr)</u></b>	<b><u>Fuel Type, % sulfur</u></b>
Plant 2, Unit 1	1.68	12.0	#2 fuel oil, 0.35%
Plant 3, Unit 1*	1.62	11.6	#2 fuel oil, 0.35%
Plant 3, Unit 2*	1.62	11.6	#2 fuel oil, 0.35%
Garage Boiler	2.10	15.0	#2 fuel oil, 0.35%
Brooder 1-2	1.19	8.5	#2 fuel oil, 0.35%
Plant 1, Generator #1	2.44	17.8	diesel, 0.05%
Plant 2, Generator #1	2.44	17.8	diesel, 0.05%
Plant 3, Generator #1	2.25	16.5	diesel, 0.05%
Plant 3, Generator #2	2.25	16.5	diesel, 0.05%
Plant 4, Generator #1	1.22	8.9	diesel, 0.05%
Plant 4, Generator #2	1.71	12.5	diesel, 0.05%
Plant 5, Generator #1	1.22	8.9	diesel, 0.05%
Plant 7, Generator #1*	4.88	35.6	diesel, 0.05%
Plant 8, Generator #1	2.44	17.8	diesel, 0.05%
Brooder 1-2 Generator	0.98	7.2	diesel, 0.05%
Brooder 5-6 Generator	1.76	12.9	diesel, 0.05%

\*Denotes new units.

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the “Significant Emission Levels” as given in Maine’s Air Regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<b><u>Pollutant</u></b>	<b><u>Current License (TPY)</u></b>	<b><u>Future License (TPY)</u></b>	<b><u>Net Change (TPY)</u></b>	<b><u>Sig. Level</u></b>
PM	1.9	3.7	+1.8	100
PM <sub>10</sub>	1.9	3.7	+1.8	100
SO <sub>2</sub>	11.5	12.2	+0.7	100
NO <sub>x</sub>	27.3	34.2	+6.9	100
CO	6.2	6.5	+0.3	100
VOC	2.0	1.9	(0.1)	50

This modification is determined to be a minor modification and has been processed as such.

## **II. BEST PRACTICAL TREATMENT (BPT)**

### **A. Introduction**

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

### **B. Plant 3, Units #1 & #2**

DEF has replaced a previously permitted 2.55 MMBtu/hr boiler in Plant 3 with two new 1.62 MMBtu/hr boilers.

These units were constructed with a maximum heat input less than 10 MMBtu/hr, and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BACT analysis for the new Plant 3, Units #1 and #2 is the following:

1. The total fuel use for the facility's boilers shall not exceed 450,000 gal/year of #2 fuel oil, based on a 12 month rolling total, with a maximum sulfur content not to exceed 0.35% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO<sub>2</sub> determined a more stringent limit of 0.35% was appropriate and shall be used.
3. The PM and PM<sub>10</sub> limits are derived from Chapter 103.
4. NO<sub>x</sub> emission limits are based on data from similar #2 fired boilers of this size and age.
5. CO and VOC emission limits are based upon AP-42 data dated 9/98.
6. Visible emissions from the boilers shall not exceed 20% opacity on a 6-minute block average.

**C. Plant 7, Generator #1**

DEF has replaced a previously permitted 200 kW emergency generator with a new 500 kW unit.

“Emergency” is defined in Chapter 100 and throughout this document as: “... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under the license, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.”

A summary of the BACT analysis for the new Plant 7, Generator #1(500 kW) is the following:

1. Plant 7, Generator #1 shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. The emergency generators shall each be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however in this case a BACT analysis for SO<sub>2</sub> determined a more stringent limit of 0.05% was appropriate and shall be used.
4. Chapter 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
5. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from the generators shall not exceed 20% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

**D. Annual Emission Restrictions**

DEF shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers	2.5	2.5	11.1	9.5	1.1	0.1
Plant 1, Gen #1	0.1	0.1	0.1	2.7	0.6	0.2
Plant 2, Gen #1	0.1	0.1	0.1	2.7	0.6	0.2
Plant 3, Gen #1	0.1	0.1	0.1	2.5	0.5	0.2
Plant 3, Gen #2	0.1	0.1	0.1	2.5	0.5	0.2
Plant 4, Gen #1	0.1	0.1	0.1	1.4	0.3	0.1
Plant 4, Gen #2	0.1	0.1	0.1	1.9	0.4	0.2
Plant 5, Gen #1	0.1	0.1	0.1	1.4	0.3	0.1
Plant 7, Gen #1	0.2	0.2	0.1	3.9	1.0	0.1
Plant 8, Gen #1	0.1	0.1	0.1	2.7	0.6	0.2
Brooder 1-2 Gen	0.1	0.1	0.1	1.1	0.2	0.1
Brooder 5-6 Gen	0.1	0.1	0.1	1.9	0.4	0.2
<b>Total TPY</b>	<b>3.7</b>	<b>3.7</b>	<b>12.2</b>	<b>34.2</b>	<b>6.5</b>	<b>1.9</b>

## ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-163-71-D-A subject to the conditions found in Air Emission License A-163-71-C-N and in the following conditions:

**The following shall replace Condition (16) of Air Emission License A-163-71-C-N:**

(16) Boilers

- A. Total fuel use for DEF's boilers shall not exceed 450,000 gal/yr of #2 fuel oil with a maximum sulfur content not to exceed 0.35% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis.
- B. Emissions shall not exceed the following:

Equipment		PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Plant 2, Unit #1	lb/hr	0.13	0.13	0.59	0.50	0.06	0.01
Plant 3, Unit #1	lb/hr	0.13	0.13	0.57	0.49	0.06	0.01
Plant 3, Unit #2	lb/hr	0.13	0.13	0.57	0.49	0.06	0.01
Garage Boiler	lb/hr	0.17	0.17	0.74	0.63	0.08	0.01
Brooder 1-2	lb/hr	0.10	0.10	0.42	0.36	0.04	0.01

- C. Visible emissions from the boilers shall not exceed 20% opacity on a 6-minute block average basis.

**The following shall replace Conditions (17) and (18) of Air Emission License A-163-71-C-N:**

(17) Emergency Generators

- A. DEF shall limit each of the Emergency Generators to 500 hr/yr of operation (based on a 12 month rolling total). Hour meters shall be maintained and operated on the Emergency Generators.

- B. Logs documenting the dates, times, and reason of operation for the Emergency Generators shall be kept.
- C. The Emergency Generators shall fire diesel fuel with a sulfur limit not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel.
- D. Emissions shall not exceed the following:

<b>Equipment</b>		<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Plant 1, Gen #1	lb/hr	0.29	0.29	0.13	10.76	2.32	0.85
Plant 2, Gen #1	lb/hr	0.29	0.29	0.13	10.76	2.32	0.85
Plant 3, Gen #1	lb/hr	0.27	0.27	0.12	9.88	2.13	0.78
Plant 3, Gen #2	lb/hr	0.27	0.27	0.12	9.88	2.13	0.78
Plant 4, Gen #1	lb/hr	0.15	0.15	0.06	5.38	1.16	0.43
Plant 4, Gen #2	lb/hr	0.21	0.21	0.09	7.54	1.62	0.60
Plant 5, Gen #1	lb/hr	0.15	0.15	0.06	5.38	1.16	0.43
Plant 7, Gen #1	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.59	0.59	0.25	15.62	4.15	0.44
Plant 8, Gen #1	lb/hr	0.29	0.29	0.13	10.76	2.32	0.85
Brooder 1-2 Gen	lb/hr	0.12	0.12	0.05	4.32	0.93	0.34
Brooder 5-6 Gen	lb/hr	0.21	0.21	0.09	7.76	1.67	0.62

- E. Visible emissions from the Emergency Generators shall not exceed 20% opacity on a 6-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

**The following are new Conditions:**

- (21) DEF shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).

**(22) Annual Emission Statement**

In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;  
or
- 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1 or as otherwise specified in Chapter 137.

- (23)** DEF shall pay the annual air emission license fee within 30 days of February 28<sup>th</sup> of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.



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(24) This amendment shall expire concurrently with Air Emission License A-163-71-C-N.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/21/03

Date of application acceptance: 6/9/03

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.